

**PRELIMINARY Analytical Data**  
**Upper Animas River**

Analyte	CAS.NO	Units	Location	32nd St Bridge	32nd St Bridge	32nd St Bridge	A68	A68	A68	A68	A72
			Sample ID	085M-1491	085M-1492	085M-1490	085M-1497	085M-1499	085M-1500	085M-1498	085M-1483
			Date	8/5/2015	8/6/2015	8/6/2015	8/5/2015	8/5/2015	8/5/2015	8/6/2015	8/5/2015
			Sample Time	20:50	0:40	9:45	16:00	19:15	23:30	6:15	13:45
			Latitude	37.299991	37.299991	37.299991	37.81120198	37.81120198	37.81120198	37.81120198	37.79027049
DM-Hardness - Calculated											
Hardness	NA	mg/l	--	158	159	160	101	103	102	103	172
ICPOE/ICPMS Diss. Metals											
Aluminum	7429-90-5	ug/L	--	< 20 U	< 20 U	< 20 U	55.1	45.6 J	31 J	30.5 J	513
Antimony	7440-36-0	ug/L	--	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
Arsenic	7440-38-2	ug/L	--	0.628 J	0.603 J	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
Barium	7440-39-3	ug/L	--	48.2	49.3	45.7	21.3	21.9	22.5	21.8	20.2
Beryllium	7440-41-7	ug/L	--	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U
Cadmium	7440-43-9	ug/L	--	0.178 J	0.16 J	0.19 J	0.828	0.815	0.974	0.85	1.81
Calcium	7440-70-2	ug/L	--	51200	51400	52200	36400	37200	36700	36900	61300
Chromium	7440-47-3	ug/L	--	3.06	3	2.47	1.08 J	< 1 U	1.23 J	< 1 U	< 1 U
Cobalt	7440-48-4	ug/L	--	0.321	0.332	0.307	0.34	0.371	0.375	0.405	5.75
Copper	7440-50-8	ug/L	--	1.7	1.56	1.62	3.45	3.16	3.52	3.26	9.27
Iron	7439-89-6	ug/L	--	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U
Lead	7439-92-1	ug/L	--	0.24	< 0.1 U	0.115 J	0.232	0.283	0.82	0.329	0.225
Magnesium	7439-95-4	ug/L	--	7280	7350	7120	2580	2560	2580	2610	4590
Manganese	7439-96-5	ug/L	--	105	105	97.8	737	727	757	817	1370
Molybdenum	7439-98-7	ug/L	--	< 1 U	< 1 U	< 1 U	1.51	1.44	1.48	1.4	< 1 U
Nickel	7440-02-0	ug/L	--	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	2.87
Potassium	7440-09-7	ug/L	--	1960	2020	1890	535 J	530 J	515 J	514 J	691 J
Selenium	7782-49-2	ug/L	--	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Silver	7440-22-4	ug/L	--	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
Sodium	7440-23-5	ug/L	--	11400	11600	11000	1750	1720	1740	1720	2400
Thallium	7440-28-0	ug/L	--	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
Vanadium	7440-62-2	ug/L	--	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U
Zinc	7440-66-6	ug/L	--	43.5	37.8	49.1	199	238	324	326	699

**PRELIMINARY Analytical Data**  
**Upper Animas River**

Analyte	CAS.NO	Units	Location	32nd St Bridge	32nd St Bridge	32nd St Bridge	A68	A68	A68	A68	A72
			Sample ID	085M-1491	085M-1492	085M-1490	085M-1497	085M-1499	085M-1500	085M-1498	085M-1483
			Date	8/5/2015	8/6/2015	8/6/2015	8/5/2015	8/5/2015	8/5/2015	8/6/2015	8/5/2015
			Sample Time	20:50	0:40	9:45	16:00	19:15	23:30	6:15	13:45
			Latitude	37.299991	37.299991	37.299991	37.81120198	37.81120198	37.81120198	37.81120198	37.79027049
<b>ICPOE/ICPMS Tot. Rec. Metals</b>											
Aluminum	7429-90-5	ug/L	--	176	171	220	111	103	88.3	90.9	5970
Antimony	7440-36-0	ug/L	--	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	6.17 D
Arsenic	7440-38-2	ug/L	--	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	28.9 D
Barium	7440-39-3	ug/L	--	49.9 JD	48.8 JD	46.8 JD	< 25 U	< 25 U	< 25 U	< 25 U	168 D
Beryllium	7440-41-7	ug/L	--	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U
Cadmium	7440-43-9	ug/L	--	< 0.5 U	< 0.5 U	< 0.5 U	0.724 JD	0.652 JD	0.717 JD	0.703 JD	2.27 D
Calcium	7440-70-2	ug/L	--	52000	52200	51600	37600	37700	38500	38300	61700
Chromium	7440-47-3	ug/L	--	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
Cobalt	7440-48-4	ug/L	--	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	7.04 D
Copper	7440-50-8	ug/L	--	2.7 JD	< 2.5 U	3.31 JD	6.15 D	4.14 JD	4.89 JD	4.63 JD	49.3 D
Iron	7439-89-6	ug/L	--	331	295	371	165 J	132 J	138 J	143 J	66300
Lead	7439-92-1	ug/L	--	2.56 D	1.8 D	3.46 JD	1.77 D	1.54 D	2.18 D	1.55 D	214 D
Magnesium	7439-95-4	ug/L	--	7140	7160	7050	2560	2540	2590	2590	5600
Manganese	7439-96-5	ug/L	--	118	113	120	729	711	750	793	1480
Molybdenum	7439-98-7	ug/L	--	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
Nickel	7440-02-0	ug/L	--	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	4.33 JD
Potassium	7440-09-7	ug/L	--	2050	2110	2050	636 J	644 J	616 J	578 J	2380
Selenium	7782-49-2	ug/L	--	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
Silver	7440-22-4	ug/L	--	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U
Sodium	7440-23-5	ug/L	--	11100	11300	10900	1680	1710	1710	1690	2470
Thallium	7440-28-0	ug/L	--	12 D	13.2 D	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U
Vanadium	7440-62-2	ug/L	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	18.3 D
Zinc	7440-66-6	ug/L	--	71.9	67.7	79.8	222	248	316	321	731
<b>TM_Mercury 245.1</b>											
Mercury	7439-97-6	ug/L	--	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U

J Data Estimated qualifier (also applied to all data less than PQL, greater than or equal to MDL)

MDL Method Detection Limit

PQL Practical Quantitation Limit, also known as reporting limit.

U Analyte not detected at or above MDL qualifier

D Diluted value qualifier.

mg/L Parts per million (milligrams per liter). Solids equivalent = mg/Kg.

ug/L Parts per billion (micrograms per liter). Solids equivalent = ug/Kg

**PRELIMINARY Analytical Data**  
**Upper Animas River**

Analyte	CAS.NO	Units	Location	A72	A72	A72	A72	Bakers Bridge	Bakers Bridge	Bakers Bridge	CC48	
			Sample ID	085M-1482	085M-1485	085M-1486	085M-1484	085M-1495	085M-1493	085M-1494	085M-1489	
			Date	8/5/2015	8/5/2015	8/5/2015	8/6/2015	8/5/2015	8/6/2015	8/6/2015	8/5/2015	
			Sample Time	16:15	20:10	23:50	6:30	20:05	0:00	9:00	19:25	
			Latitude	37.79027049	37.79027049	37.79027049	37.79027049	-37.454134	-37.454134	-37.454134	37.82	
Longitude			-107.6675778	-107.6675778	-107.6675778	-107.6675778	-107.801601	-107.801601	-107.801601	-107.6631		
<b>DM-Hardness - Calculated</b>												
Hardness	NA	mg/l	--	271	158	144	143	98	98	138	537	
<b>ICPOE/ICPMS Diss. Metals</b>												
Aluminum	7429-90-5	ug/L	--	12000	1370	59.1	< 20 U	52.3	43.9 J	904	23900	
Antimony	7440-36-0	ug/L	--	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2.5 U	
Arsenic	7440-38-2	ug/L	--	0.797 J	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2.5 U	
Barium	7440-39-3	ug/L	--	22.6	21.6	20.8	21.5	29.8	29.9	30.3	25.7 JD	
Beryllium	7440-41-7	ug/L	--	4.5 J	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	9.29	
Cadmium	7440-43-9	ug/L	--	15.2	4.29	2.59	2.11	0.353	0.336	5.32	30.6 D	
Calcium	7440-70-2	ug/L	--	95400	55700	51000	50700	32600	32600	46500	190000	
Chromium	7440-47-3	ug/L	--	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 5 U	
Cobalt	7440-48-4	ug/L	--	32.1	7.98	5.4	4.69	1.02	1.08	9.32	54.4 D	
Copper	7440-50-8	ug/L	--	1410	205	11.4	7.63	2.28	1.88	189	2260 D	
Iron	7439-89-6	ug/L	--	5840	3170	2090	1980	< 100 U	< 100 U	189 J	27000	
Lead	7439-92-1	ug/L	--	50.7	3.12	0.118 J	< 0.1 U	< 0.1 U	< 0.1 U	1.56	73.9 D	
Magnesium	7439-95-4	ug/L	--	8030	4650	4170	4030	3990	3920	5300	15400	
Manganese	7439-96-5	ug/L	--	6650	1810	1320	1160	306	296	2090	10900	
Molybdenum	7439-98-7	ug/L	--	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 5 U	
Nickel	7440-02-0	ug/L	--	13.8	4.04	2.69	2.72	0.646 J	0.788 J	5.39	28.8 D	
Potassium	7440-09-7	ug/L	--	1520	721 J	631 J	605 J	631 J	646 J	912 J	2160	
Selenium	7782-49-2	ug/L	--	1.14 J	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 5 U	
Silver	7440-22-4	ug/L	--	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2.5 U	
Sodium	7440-23-5	ug/L	--	2600	2310	2330	2310	1790	1790	1960	3930	
Thallium	7440-28-0	ug/L	--	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2.5 U	
Vanadium	7440-62-2	ug/L	--	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 10 U	
Zinc	7440-66-6	ug/L	--	4020	1210	733	609	85.8	110	1700	8540	

**PRELIMINARY Analytical Data**  
**Upper Animas River**

Analyte	CAS.NO	Units	Location	A72	A72	A72	A72	Bakers Bridge	Bakers Bridge	Bakers Bridge	CC48
			Sample ID	085M-1482	085M-1485	085M-1486	085M-1484	085M-1495	085M-1493	085M-1494	085M-1489
			Date	8/5/2015	8/5/2015	8/5/2015	8/6/2015	8/5/2015	8/6/2015	8/6/2015	8/5/2015
			Sample Time	16:15	20:10	23:50	6:30	20:05	0:00	9:00	19:25
			Latitude	37.79027049	37.79027049	37.79027049	37.79027049	-37.454134	-37.454134	-37.454134	37.82
ICPOE/ICPMS Tot. Rec. Metals											
Aluminum	7429-90-5	ug/L	--	126000 D	12800	4470	2780	363	375	31400	69000 D
Antimony	7440-36-0	ug/L	--	< 50 U	10.2 D	2.66 JD	< 2.5 U	< 2.5 U	< 2.5 U	19.9 JD	35.1 JD
Arsenic	7440-38-2	ug/L	--	1080 D	116 D	27.1 D	15.7 D	< 2.5 U	< 2.5 U	264 D	732 D
Barium	7440-39-3	ug/L	--	1410 D	111 D	47.6 JD	31.2 JD	29.9 JD	30.7 JD	341 D	439 JD
Beryllium	7440-41-7	ug/L	--	18.4 JD	2.06 J	< 2 U	< 2 U	< 2 U	< 2 U	4.73 J	13.1 JD
Cadmium	7440-43-9	ug/L	--	28.3 D	4.69 D	3.23 D	2.34 D	< 0.5 U	< 0.5 U	6.13 D	30.6 D
Calcium	7440-70-2	ug/L	--	98400 D	55100	51100	50300	33000	32400	48500	171000 D
Chromium	7440-47-3	ug/L	--	< 100 U	10.6 D	< 5 U	< 5 U	< 5 U	< 5 U	< 25 U	< 50 U
Cobalt	7440-48-4	ug/L	--	54.1 D	9.51 D	5.92 D	5.24 D	0.975 JD	1.12 D	12.8 D	59.8 D
Copper	7440-50-8	ug/L	--	4820 D	542 D	180 D	113 D	4.03 JD	4.15 JD	1120 D	3620 D
Iron	7439-89-6	ug/L	--	1250000 D	164000	35700	18400	421	412	326000	896000 D
Lead	7439-92-1	ug/L	--	25600 D	1390 D	301 D	88.3 D	3.45 D	1.5 D	5720 D	7530 D
Magnesium	7439-95-4	ug/L	--	41800 D	6490	4640	4120	4110	3920	12100	23400 D
Manganese	7439-96-5	ug/L	--	12200 D	2020	1350	1170	302	295	3040	11900 D
Molybdenum	7439-98-7	ug/L	--	268 D	23.2 D	5.89 D	< 5 U	< 5 U	< 5 U	66.9 D	138 D
Nickel	7440-02-0	ug/L	--	< 50 U	6.61 D	3.75 JD	3.54 JD	< 2.5 U	< 2.5 U	< 12.5 U	36 JD
Potassium	7440-09-7	ug/L	--	28600 D	3030	1480	940 J	751 J	748 J	8400	11300 D
Selenium	7782-49-2	ug/L	--	< 100 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 25 U	< 50 U
Silver	7440-22-4	ug/L	--	149 D	8.25 D	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	37.8 D	45.7 JD
Sodium	7440-23-5	ug/L	--	4750 JD	2460	2310	2250	1870	1820	2710	4450 JD
Thallium	7440-28-0	ug/L	--	< 50 U	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	< 12.5 U	< 25 U
Vanadium	7440-62-2	ug/L	--	677 D	80.7 D	18.7 D	12.4 JD	< 10 U	< 10 U	172 D	455 D
Zinc	7440-66-6	ug/L	--	6840 D	1250	806	672	129	137	1860	8060 D
TM_Mercury 245.1											
Mercury	7439-97-6	ug/L	--	0.418	0.065 J	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	0.152	0.078 J

J Data Estimated qualifier (also applied to all data)

MDL Method Detection Limit

PQL Practical Quantitation Limit, also known as report

U Analyte not detected at or above MDL qualifier

D Diluted value qualifier.

mg/L Parts per million (milligrams per liter). Solids equ

ug/L Parts per billion (micrograms per liter). Solids equ

**PRELIMINARY Analytical Data**  
**Upper Animas River**

Analyte	CAS.NO	Units	Location	CC48	CC48	Cement Creek 14th St Bridge
			Sample ID	085M-1488	085M-1487	085M-1496
			Date	8/5/2015	8/6/2015	8/5/2015
			Sample Time	23:00	6:00	16:00
			Latitude	37.82	37.82	37.8124
			Longitude	-107.6631	-107.6631	-107.661401
<b>DM-Hardness - Calculated</b>						
Hardness	NA	mg/l	--	467	433	1300
<b>ICPOE/ICPMS Diss. Metals</b>						
Aluminum	7429-90-5	ug/L	--	14400	10100	91900
Antimony	7440-36-0	ug/L	--	< 2.5 U	< 2.5 U	< 5 U
Arsenic	7440-38-2	ug/L	--	< 2.5 U	< 2.5 U	< 5 U
Barium	7440-39-3	ug/L	--	< 25 U	< 25 U	< 50 U
Beryllium	7440-41-7	ug/L	--	4.31 J	2.65 J	34.8
Cadmium	7440-43-9	ug/L	--	19.1 D	14.2 D	98.3 D
Calcium	7440-70-2	ug/L	--	167000	156000	461000
Chromium	7440-47-3	ug/L	--	< 5 U	< 5 U	< 10 U
Cobalt	7440-48-4	ug/L	--	36.2 D	30.7 D	204 D
Copper	7440-50-8	ug/L	--	1130 D	786 D	10400 D
Iron	7439-89-6	ug/L	--	21300	20000	49500
Lead	7439-92-1	ug/L	--	54.1 D	30 D	150 D
Magnesium	7439-95-4	ug/L	--	12300	10900	36500
Manganese	7439-96-5	ug/L	--	8020	6720	37100
Molybdenum	7439-98-7	ug/L	--	< 5 U	< 5 U	< 10 U
Nickel	7440-02-0	ug/L	--	18.2 D	15.8 D	91.5 D
Potassium	7440-09-7	ug/L	--	1600	1410	6630
Selenium	7782-49-2	ug/L	--	< 5 U	< 5 U	< 10 U
Silver	7440-22-4	ug/L	--	< 2.5 U	< 2.5 U	< 5 U
Sodium	7440-23-5	ug/L	--	3660	3690	4960
Thallium	7440-28-0	ug/L	--	< 2.5 U	< 2.5 U	< 5 U
Vanadium	7440-62-2	ug/L	--	< 10 U	< 10 U	< 20 U
Zinc	7440-66-6	ug/L	--	5820	4650	26800

**PRELIMINARY Analytical Data**  
**Upper Animas River**

Analyte	CAS.NO	Units	Location	CC48	CC48	Cement Creek 14th St Bridge
			Sample ID	085M-1488	085M-1487	085M-1496
			Date	8/5/2015	8/6/2015	8/5/2015
			Sample Time	23:00	6:00	16:00
			Latitude	37.82	37.82	37.8124
			Longitude	-107.6631	-107.6631	-107.661401
<b>ICPOE/ICPMS Tot. Rec. Metals</b>						
Aluminum	7429-90-5	ug/L	--	28700 D	16400	945000 D
Antimony	7440-36-0	ug/L	--	14.1 D	6.79 D	321 JD
Arsenic	7440-38-2	ug/L	--	203 D	98.5 D	8230 D
Barium	7440-39-3	ug/L	--	159 D	52.3 D	9730 D
Beryllium	7440-41-7	ug/L	--	< 10 U	3.55 J	135 JD
Cadmium	7440-43-9	ug/L	--	18.5 D	14.5 D	165 D
Calcium	7440-70-2	ug/L	--	154000 D	146000	454000 D
Chromium	7440-47-3	ug/L	--	17.2 JD	6.62 JD	706 JD
Cobalt	7440-48-4	ug/L	--	39.1 D	29.8 D	384 D
Copper	7440-50-8	ug/L	--	1480 D	909 D	36700 D
Iron	7439-89-6	ug/L	--	276000 D	130000	9930000 D
Lead	7439-92-1	ug/L	--	2010 D	536 D	179000 D
Magnesium	7439-95-4	ug/L	--	15000 D	11300	279000 D
Manganese	7439-96-5	ug/L	--	8270 D	6540	78000 D
Molybdenum	7439-98-7	ug/L	--	36.5 D	14.3 D	2010 D
Nickel	7440-02-0	ug/L	--	20.8 D	14.8 D	276 JD
Potassium	7440-09-7	ug/L	--	5220 D	2470	212000 D
Selenium	7782-49-2	ug/L	--	10.1 JD	< 5 U	< 500 U
Silver	7440-22-4	ug/L	--	10.8 D	2.53 JD	1110 D
Sodium	7440-23-5	ug/L	--	3940 JD	3730	23400 JD
Thallium	7440-28-0	ug/L	--	< 5 U	< 2.5 U	< 250 U
Vanadium	7440-62-2	ug/L	--	131 D	67.3 D	5470 D
Zinc	7440-66-6	ug/L	--	5400 D	4160	44000 D
<b>TM_Mercury 245.1</b>						
Mercury	7439-97-6	ug/L	--	0.077 J	0.052 J	19.2 D

J Data Estimated qualifier (also applied to all data)

MDL Method Detection Limit

PQL Practical Quantitation Limit, also known as report

U Analyte not detected at or above MDL qualifier

D Diluted value qualifier.

mg/L Parts per million (milligrams per liter). Solids equ

ug/L Parts per billion (micrograms per liter). Solids equ